River Residential Planning Area

RIVER RESIDENTIAL Planning Area

PLANNING AREA PROFILE:

Location

The River Residential Planning area is located in the northeastern portion of the Town of Smithfield. It is bounded on the north and west by the Pagan River, on the south by a portion of South Church Street and the John Rolfe Planning Area and on the east by Moone Creek, the Town's corporate boundary and the Gatling Pointe subdivision. The Planning Area consists of approximately 421 acres.

Existing Land Use and Transportation System

The River Residential Planning Area is composed almost entirely of single family detached residences with the exceptions being a single commercial use and a Town sewer pump facility located adjacent to South Church Street just east of the Cypress Creek bridge and Beale Park, a private neighborhood park located north of Lumar Road. The Planning Area incorporates the entire Red Point Heights and Pagan Point neighborhoods, as well as the northern half of the Moonefield subdivision. Although the Planning Area is largely built-out (existing development occupies nearly 90% of its total land area), several limited in-fill development opportunities have been identified as having prime development potential. These infill opportunity areas account for approximately nine total acres, representing just 2% of the total land area within the Planning Area.

The neighborhoods in the River Residential Planning Area rely entirely on two principle access areas in order to travel into and out of their community: the South Church Street/Red Point Drive and Jordan Drive intersections and the John Rolfe Drive/Battery Park Road intersection. These three intersections serve the transportation demands associated with over 600 total residences located within the Planning Area, in addition to several dozen uses located in the adjacent John Rolfe Planning Area.

From these primary access points, traffic in the Planning Area is funneled to and from the residences via a hierarchy of residential streets, linked together by two local collector streets: Lumar Road and Moonefield Drive. In turn, these two collectors distribute local residential traffic to a series of minor residential streets, including Riverside Drive, Pagan Road and Watson Drive which then connect to local neighborhood streets and cul-de-sacs. Both Lumar and Moonefield typify the older, town-scaled collector alignments that dominate the stable residential areas in Smithfield in that they have been called upon to serve traffic functions which are diverse, competing and often exceed their capacity. Both are marked by narrow pavements and rights-of-way and poorly functioning or otherwise lacking drainage facilities.

This loosely integrated transportation system puts great strain on the primary access points and the primary collector roads that provide access for each neighborhood in the Planning Area, particularly during peak commuting periods. Traffic entering and exiting Battery Park Road at the John Rolfe Drive intersection creates traffic bottlenecks during high traffic demand periods and increases the potential for

traffic accidents. This excess traffic demand problem is magnified on Moonefield Drive which is too narrow (20-22' in width) to effectively handle existing peak traffic demands associated with the northern half of the Moonefield neighborhood. Neighborhood residents have also expressed concern with the high speeds commonly achieved by through traffic along this collector road.

Existing Environmental Considerations

The Planning Area is impacted on three sides (the north, west and east) by the wetlands and marsh adjacent to the Pagan River and its associated tributaries. Wetlands and marsh areas lie directly adjacent to the Pagan Pointe and Red Point Heights neighborhoods and Moone Creek and its associated tributaries and surrounding wetlands separate the northern half of the Moonefield community from the Gatling Pointe subdivision. Each of these wetlands and marsh areas have been identified as Resource Protection Areas (RPA's) and are protected from future development. The boundary of the River Residential Planning Area has been located such that a majority of these areas have been excluded from consideration for development planning purposes. However, the scenic marshlands and critical slopes of these waterways penetrate the Planning Area in several areas in order to create barriers to construction for a small portion of the land. These penetration areas are identified as sensitive environmental areas, and together, they account for nearly ten percent (approximately 40 acres) of the total Planning Area. While these tidal waterways have limited the total buildable area in the Planning Area, they have provided dramatic siting opportunities from the adjacent ridges. Few of the infill development opportunities remaining in the Planning Area are located along these ridges, however.

River Residential LAND USE PLAN

The River Residential Planning Area is planned as a stable residential community focusing almost entirely on single family detached homes with a private neighborhood park. Future development in the Planning Area is limited to several scattered infill development and potential redevelopment opportunities in the residential areas. Together, these infill opportunities account for less than three percent (approximately 9 acres total) of the total land area in the Planning Area.

In the following sections, specific land use recommendations are presented for the three Sub-Areas identified in the River Residential Planning Area.

Sub-Area 1, 2 and 3 Recommendations

Sub-Area 1 is located in the northwestern portion of the River Residential Planning Area. It is bounded on the west and north by the the Pagan River and its adjacent marsh and wetlands, on the south by the Sub-Area 3 (the Red Point Heights subdivision) and on the east by Sub-Area 2 (the Moonefield subdivision). Sub-Area 1 includes the area commonly referred to as the Pagan Point neighborhood and encompasses approximately 63 acres. It is planned for low density residential use which is intended to protect and preserve the stable community that exists within the Sub-Area. This land use designation

would allow infill single family detached residential development at a density of between one and three dwelling units per acre, representing a density that is consistent, if not slightly more restrictive than existing residential development within the community. At this density, it is estimated that between 3 and 8 new housing units could potentially be located within the Sub-Area's 2.5 net developable acres.

Sub-Area 2 is located in the northeastern portion of the River Residential Planning Area. It is bounded on the north by the Pagan River and its adjacent marsh and wetlands, on the west by Sub-Area 1, on the south by John Rolfe Planning Area and on the east by Moone Creek and its adjacent marsh. The Sub-Area includes the northern half of what is commonly referred to as the Moonefield neighborhood and it encompasses approximately 159 acres. It is planned for low density residential use which is intended to protect and preserve the stable Moonefield community. This land use designation would allow infill single family detached residential development at a density of between one and three dwelling units per acre, representing a density that is consistent, if not slightly more restrictive than existing residential development within the Sub-Area. At this density, it is estimated that between 3 and 10 new housing units could potentially be located within the Sub-Area's 3.2 net developable acres.

Sub-Area 3 is located in the southwestern portion of the River Residential Planning Area. It is bounded on the north by Sub-Area 1, on the west by the Pagan River and its adjacent marsh and wetlands, on the south by Lumar Road and on the east by the John Rolfe Planning Area. The Sub-Area includes the area commonly referred to as the Red Point Heights neighborhood and it encompasses approximately 152 acres. It is planned for low density residential use which is intended to protect and preserve the stable residential community located in the Planning Area. This land use designation would allow infill single family detached residential development at a density of between one and three dwelling units per acre, representing a density that is consistent, if not slightly more restrictive than existing residential development within the Sub-Area. At this density, it is estimated that between 4 and 11 new housing units could potentially be located within the Sub-Area's 3.6 net developable acres.

The major issues involved with the future stability and infill development in each of these Sub-Areas are (1) stormwater management, (2) traffic calming, (3) pedestrian access and (4) ensuring that future infill projects respect adjacent residential uses. Each of the three major subdivisions in the Planning Area were developed without the benefit of modern stormwater management facilities, and as a result, storm drainage problem areas have been identified throughout the Planning Area by residents and Town Staff. For the most part, small ditches or crude swales adjacent to the minor residential streets are relied upon to store and transport surface stormwater flows. During heavy storm events, these facilities are often too small to properly handle peak stormwater flows and minor flooding typically occurs in the streets and in residential yards. In several sections of the Planning Area, residential lots do not even have these primitive ditches or swales to manage stormwater flows. Stormwater management weaknesses are most glaring in the Beale Park area, as heavy storm events typically leave standing water on the playing fields and in the parking lot of the recreational facility.

As a result of these reoccurring problems, drainage in the Planning Area has become a major concern for residents and Town officials. Unfortunately, given the largely flat terrain of the communities and the compact nature of the lots, the addition of sufficient stormwater management facilities in the Area would be very costly and perhaps prohibitive. Once the Town has its new digital mapping and geographic information system in place, it should undertake a comprehensive analysis of stormwater management in the community, focusing attention on problem areas identified by Staff and residents in this and other Planning Areas. This study should include an analysis of possible design solutions and recommendations concerning financing strategies for each neighborhood and planning Sub-Area. Furthermore, future infill development projects should incorporate modern stormwater management principles and strategies in site plans in order to insure that storm flow will be adequately managed on site in order to avoid further exacerbating existing drainage problems in the Planning Area.

Traffic calming is another important consideration for the future of the Planning Area. The existing transportation system serving the Planning Area is often overburdened during periods of peak demand, particularly at the points of primary access into the Planning Area and along the two primary collector roads that provide access into the three neighborhoods. This excess traffic demand problem is magnified by the fact that the majority of the roads in the Planning Area's internal street network are too narrow to effectively handle existing peak traffic demands associated with the local neighborhoods. Residents of the three communities within the Planning Area have also expressed concern with the high speeds commonly achieved by thru-traffic along collector roads. Combined with the lack of sidewalks or bikepaths in the Planning Area, these high peak traffic volumes and speeds create a dangerous situation for pedestrians and children playing in the Planning Area.

The maturity of development in the Planning Area creates a "double-edged sword" with respect to future transportation planning. On the one hand, since the Planning Area is nearly built-out (infill development opportunities provide a potential for between only 9 and 28 new homes before complete build-out is achieved), vehicular traffic demand is unlikely to grow much beyond existing levels. This trend affords the Town the ability to gauge quite precisely what improvements are necessary to enable the transportation network to adequately serve future demand within the Planning Area. Unfortunately, the Town must work within the existing transportation system, poorly designed as it is, in order to plan these improvements in the hopes of creating a more pedestrian-friendly and child-safe environment for local residents.

Along several streets within the Planning Area, little or no substantial right-of-way is available to widen existing streets or add sidewalks and bikepaths. Sufficient right-of-way capacity is available along Moonefield Drive, however. As is described in more detail in the Transportation Chapter (Chapter X), it is recommended that the Town conduct a study to determine the feasibility of widening Moonefield Drive to allow it to function as a more effective collector street for the adjacent residential neighborhoods. Sidewalks and bikepaths should be included in any future improvement of this street in order to provide pedestrian and bicycle connections between residential areas in the Planning Area and Beale Park.

Where right-of-way capacity is not sufficient to implement similar improvements in the Planning Area, the Town should focus on the introduction of various traffic calming strategies to be used to slow thru-traffic and decrease pedestrian and vehicle safety hazards in the Area. Several specific calming measures could be used within the three major neighborhoods in order to remedy the potentially hazardous conditions that currently exist. Examples of possible measures include: more aggressive enforcement of existing posted speed limits, improved speed limit signage and street lighting, increased fines for speeding in the Planning Area, the addition of new stop lights and stop signs if warranted and the introduction of more visible crosswalks along heavily traveled pedestrian/roadway intersections and crossings.

A final important consideration with respect to the future of the Planning Area concerns the nature of infill development. Future infill projects in the Planning Area should respect existing, adjacent land uses in terms of scale, density, geometric siting configuration and building materials. Each project should also incorporate sufficient buffering and modern stormwater management design strategies and practices in order to minimize the negative externalities associated with the new development impacting existing communities, the Pagan River, Moone Creek and/or their tributaries and wetlands.

FUTURE LAND USE SUMMARY

The Comprehensive Plan projects the River Residential Planning Area as a continued stable single family detached residential community. The Town should focus its efforts in this Planning Area on implementing specific transportation improvements in the Planning Area, including provisions for lane widening where feasible and incorporating traffic calming strategies for the two local collector streets (Lumar Road and Moonefield Drive) and minor residential streets, including Riverside Drive, Pagan Road and Watson Drive. The Town should also undertake an in-depth analysis of stormwater management problems and opportunities in the Planning Area to include specific recommendations for improvements and financing alternatives.

Future infill development in the Planning Area needs to respond to the applicable Chesapeake Bay requirements applying to water quality standards. The development of necessary stormwater management facilities to serve proposed redevelopment projects should be included in this consideration in order to protect the nearby river and creeks. Future development should also employ extensive landscaping and minimal earthwork.

The River Residential Planning Area has the potential to accommodate between approximately 9 and 28 new households. New infill development should incorporate modern stormwater management strategies designed to prevent the drainage problems experienced in the surrounding neighborhood.

The table below summarizes the development potential of each of the Sub-Areas as recognized in the Plan.

FUTURE LAND USE PLAN

RIVER RESIDENTIAL PLANNING AREA

Sub-Area	Sub-Area Acreage	Net Develop-able Acreage	Recommended Use	Density	Yield
1	63.3	2.5	Low Density Residential	1-3	3 - 8 du
2	159.2	3.2	Low Density Residential	1-3	3 - 10 du
3	151.8	3.6	Low Density Residential	1-3	4 - 11 du
Sub-Area Total	374.3	9.3	**Estimated Totals:** Low Density Residential		9 - 28 du
Sensitive Environ-mental Areas	40.0				
Existing Urban Development	372.7				
Planning Area Total	421.0	9.3			